UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/771,878 | 01/30/2001 | Sachiko Hiyoshi | 010031 | 9017 |

23850 7590 10/05/2004

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

| EXAMINER | |
|---|---|
| WEINSTEIN, STEVEN L | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1761 | |

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 09/771,878 | HIYOSHI, SACHIKO |
| | Examiner | Art Unit |
| | Steven L. Weinstein | 1761 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *16 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *6-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 10 and 11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. Claim 9 is a multiple dependent claim. See MPEP § 608.01(n). Accordingly, claims 10 and 11 have not been further treated on the merits.

Claim 10/2 is also objected to as being dependent on a canceled claim (i.e. claim 2).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al ('724) in view of Iwata et al (JP '570) or vice versa, both further in view of Airlie (GB '212) and Lee (EP '251).

In regard to claims 6 and 7, Clark et al discloses a food enclosed in a container and a cover comprising a plastic sheet comprising a surface portion (e.g. 11 in Fig. 11), at least one vent hole (111) provided in the surface portion, and at least one hole-sealing sheet (the combination of 214 and 219) for sealing the vent-hole comprising a base material (219) and a pressure sensitive adhesive layer (214) provided on the base material for attaching the hole-sealing sheet to said surface portion surrounding the vent hole and wherein the pressure sensitive adhesive includes styrene butadiene based polymer and an acryl based polymer (e.g. Example B2 which contains Morstik , a styrene butadiene rubber and the polymer composition of Example A3) and wherein the hole sealing sheet possesses both pressure sensitive and thermo-

sensitive properties and has a peeling strength at microwave cooking temperatures that is much lower than its peeling strength at lower, non-cooking temperatures. Thus, Clarke et al teaches applicants problem and solution. That is, Clark et al teaches when cooking food by using microwaves in a sealed package, dangerously high pressures and temperatures are generated, and to vent the sealed package at a particular temperature and/or time, one provides a package that has a vent hole covered by a pressure sensitive and heat sensitive tape, which tape is pressure sensitively secured over the vent hole to seal the hole, but loses its adhesive strength when it is heated to the elevated temperature at which the container is to be vented. Iwata et al is further evidence that a vent hole containing heated package wherein the vent hole is covered by a pressure sensitive adhesive tape that is also temperature sensitive at cooking temperatures to allow for venting of the package when the pressure sensitive/heat sensitive tape weakens, is notoriously old. Claims 6 and 7 differ from Clarke et al in the recitation that the adhesive is "consisting" of the styrene- butadiene based rubber, an acryl based rubber and a rosin-based or a petroleum resin based material. As disclosed, the rosin-based or petroleum resin-based components are "stickiness providing materials" so as to have both excellent pressure sensitive and thermo-sensitive properties (page 9, lines 2-5 of the specification). Clark et al (or Iwata et al) does not appear to disclose the addition of a rosin-based or petroleum resin based material. However, as evidenced by Airlie and Lee, it is notoriously old in the adhesive art to provide pressure sensitive adhesive compositions containing both styrene butadiene and acrylate, with resin (or rosin) based materials as tackifiers. This is presumably why applicant includes these materials in the pressure sensitive adhesive since applicant refers to their function as stickiness materials. Airlie discloses that by adding rosins or resins to pressure sensitive adhesives used in

pressure sensitive labels or adhesive tape, the rosins or resins modify tack, adhesion and cohesive strength, rendering them suitable for use on a wider variety of substrates. Therefore, to modify Clark et al (as further evidenced by Iwata et al) and add a conventional rosin-based or petroleum resin-based tackifying agent for its art recognized (e.g. Airlie and Lee) and applicants intended function is seen to have been obvious in view of the art taken as a whole. Note that the tackifiers are used to control the tackiness of the adhesive in its pressure sensitive function. Note, too, in regard to the peeling strengths, if not inherent in Clark et al, Iwata et al can be relied on to teach strengths within the range and thus are obviously and routinely determinable. It is noted that by employing Clarke et al as the primary reference, a sufficiently new emphasis has been put on the record to warrant a new rejection. In any case, Iwata et al is also still considered appropriate as a primary reference.

Claims 6 and 7 differ from Iwata et al in that the adhesive is recited as consisting of styrene/butadiene, acrylate and a rosin-based or petroleum resin based material. Thus, claims 6 and 7 exclude the foaming material of Iwata et al, which causes the softening of the PSA tape. However, Clark et al teaches a foaming material is not required to provide softening of a PSA tape if the appropriate styrene/butadiene, acrylate PS Adhesive is selected. Therefore, to modify Iwata et al and eliminate the foaming material and its function in view of the art taken as a whole would have been obvious. The addition to Iwata of the rosin-based or petroleum resin based material for its art recognized and applicants intended function is seen to have been obvious as discussed above.

All of applicant's remarks filed 6/16/04 have been fully and carefully considered, but, in regard to the art rejections, are found to be either moot in view of the new ground of rejection or

not convincing, for the reasons given above. However, several points are to be noted. On page 11 of the amendment, it is urged that Clark et al is directed to temperature responsive containers that provide for visually determining the thermal history of a sealed package. This is only one of a series of possible uses that Clark et al teaches for pressure sensitive adhesive tapes that are also temperature sensitive and weaken at predetermined pressures and/or times. As noted above, Clark et al clearly and unequivocally discloses that another use for pressure sensitive/heat sensitive adhesive tapes is to vent sealed packages at a certain temperature or time subjected to cooking which is applicant's intended function. The amendment urges that the temperature of the package should be vented at not more than about $18^0$ C. This urging is totally unconvincing. These disclosed temperatures have nothing to do with the Clark et al's teaching of using the PSA/TSA tape in venting food packages during cooking. Instead, the temperatures in question are clearly directed to Clark et al's embodiment wherein produce is placed within containers which are not cooked at all, but are intended to be stored and vented to allow gas exchange if the stored produce environment becomes too warm (e.g. column 1, paragraph 3). It is also urged that Clark et al does not require the adhesive to be temperature sensitive. Not only does Clarke et al teach that the PSA tape is also temperature sensitive (e.g. column 2, lines 1 plus), which is a sufficient teaching for the obviousness rejection, but all of the examples of Clarke et al employ PSA/TSA tape. The urging that Clarke et al employs a heat recoverable film is only partly correct. The film or tape is temperature sensitive (i.e. the adhesive part of the tape) and heat recoverable (i.e. the substrate or non-adhesive part of the tape. Note that the claims do not exclude heat recoverable tapes. In fact, the art taken as a whole including Clark et al and Iwata et al disclose that the substrate or non-adhesive part of the PSA tape can either be heat-

recoverable or non-heat recoverable. Further in this regard, and contrary to what is urged on page 13 of the amendment, the Fig. 11 embodiment is not seen to be limited to a PSA tape that does not have thermo-sensitive properties. As with the other PSA, thermo-sensitive adhesives, the adhesive of Fig. 11 is labeled element 214 and not element 215, which was the designation for a non thermo-sensitive PS adhesive as shown, for example, in Fig. 4. It would also not make sense that element 214 in Fig. 11 is not thermo-sensitive because how could the tape (element 219) wrinkle if held by the adhesive? Also, even if somehow the tape part separated from the adhesive, the adhesive would still cover the vent hole. The adhesive tape must be temperature sensitive. However, even if the adhesive could somehow be shown not to be temperature sensitive, the teachings within Clark et al and Iwata teach it would have been obvious to employ a temperature sensitive, PSA tape.

Finally, Airlie and Lee do not teach away from non-permanent adhesives. First of all, they are silent as to the particular environments they are to be used in –i.e., releasable or non-releasable. Secondly, they are only being relied on to teach that tackifiers, including those disclosed, are conventional to control the PS Adhesive qualities desired in a tape.

Finally, applicant has still not responded to the question whether applicant is the inventor of the adhesive or the adhesive tape. He appears not to be the inventor of either. This information is pertinent to a complete determination of what is the art taken as a whole.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven L. Weinstein whose telephone number is (571) 272-1410. The examiner can normally be reached on Monday-Friday from 7:00 a.m. to 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.L. Weinstein/dh
October 1, 2004

Steven Weinstein
STEVE WEINSTEIN
PRIMARY EXAMINER 1761
10/4/04